NOTE: The full Environmental Quality Service Council has not yet voted on the content of this report

Non-Point Source Pollution Work Group
[This work group is now called the Non-Point Source Pollution Subcommittee]

Report to the Environmental Quality Service Council
June 18, 1998

Of all the many environmental issues that face the State of Indiana, dealing with non-point source pollution is undoubtedly the most challenging. The difficulty is not necessarily found in the State's technical ability to deal with the issues. The real challenge comes from the need to find the proper balance among the interests of the recreational users, public water suppliers, agriculture, the construction industry, local governments, various State agencies and citizens groups that provides solutions which meet the environmental goals of Indiana without creating an undue economic burden on the State. Indiana's waterways are a resource held in the public trust. All stakeholders have a responsibility to prevent further degradation of this valuable resource.

The water quality in Indiana's surface waters is threatened with degradation from many sources, both point sources and non-point sources. The State has established rules through the NPDES program to help manage point source pollution. It is important for these rules to be administered effectively if we are to address non-point sources successfully. While great progress has been made in the control of point source pollution over the last 25 years, existing data indicates that if we are to be successful in restoring and protecting Indiana's waterways, we must adhere to our own water quality standards. Controlling non-point sources of pollution is critical to this success.

Non-point source pollution is caused primarily by run-off. Run-off from construction sites, residential developments, farm land, and cities. Run-off carries with it silts and clays that cloud surface waters, suffocates bottom life and prevents successful fish and mussel reproduction. These silts can contain heavy metals and organics, some of which accumulate in aquatic life. Run-off can also carry pesticides, herbicides, and fertilizers used on lawns and farmland. Rain water flowing from streets and parking lots in urban areas also carry contaminants into our surface waters.

Another source results from the mishandling of waste which may or may not be compounded by run-off. Improper disposal of solid waste can be witnessed along a number of our waterways. A recent tour of a section of the Wildcat Creek in Howard County revealed a number of waste tires, household trash, bicycles, industrial solid waste and cars.

The most significant contribution of non-point source pollution from improper waste handling is the result of spilled animal waste from feeding operations, improper land application of animal and domestic waste residuals and inadequately designed septic systems. These contributors can seriously degrade the biological quality of a surface water by introducing E-Coli bacteria, viruses and parasitic organisms such as cryptosporidium.

The interrelationship between water quality and air quality is an important consideration as well. Air emissions may contain heavy metals such as mercury which can be carried into streams by precipitation. These types of contaminants may be bio-accumulators or may contaminate bottom silts.

IDEM understands the need to mitigate these sources of surface water degradation. The current Performance Partnership Agreement between IDEM and USEPA lists the restoration and protection of Indiana's surface waters as one of the Environmental/Strategic Goals among ten others. Although all ten goals listed in the agreement are important and closely related, there is no true prioritization of the goals. A prioritization of the goals and objectives of Indiana's environmental protection programs should be considered an important part of the allocation of resources to these programs. This is a recommendation of the work group.

There are a number of programs inside and outside of IDEM that focus in whole or in part on the issues surrounding non-point source pollution. There are programs within other state and federal agencies such as the DNR, the State Chemist's Office and USEPA. There are numerous citizens groups which typically focus on one issue or one body of water. A number of work groups and task forces are meeting to address the issues. Finally, the USEPA is working to establish new environmental guidelines. Probably the greatest hurdle for IDEM to overcome is coordinating the various programs and agencies into a concerted effort to protect Indiana's waterways. The work group feels the current approach to non-point source pollution is somewhat disjointed and suggest these efforts could be better coordinated if specific programs were established under the auspices of a single agency.

Outside state government, a number of citizen groups have been established to address specific issues or specific water ways. There are nearly 90 known groups working on some aspect of watershed protection. These groups represent a resource for IDEM and the other state agencies. However, they need educational, financial or administrative resources to meet their goals. Where goals and objectives are parallel, public/private partnerships should be formed

After extensive discussions of the current initiatives addressing non-point source pollution, the work group felt additional work was needed in the following areas.

First, IDEM along with all other agencies having interest in non-point source pollution should have a stricter guideline for prioritizing programs. This would help identify resources and relationships necessary to effectively address the most critical issues.

Second, a more formal process is needed for evaluating and sharing information that is being generated by all agencies, associations, and citizens groups. We should avoid analysis paralysis. When we know the source of pollution we should act to control or eliminate it. In those industries where proactive efforts exist to control pollution (ie. Agriculture), the knowledge gained and solutions proposed should be utilized.

Third, better coordination and communication between agencies, associations and citizens groups is critical for the effective use of resources to address non-point source pollution. This coordination

is also necessary for better program planning.

Fourth, the watershed approach should be expanded. The Wildcat Creek pilot project should be accelerated so as to allow knowledge gained from the project to be used in other watersheds as quickly as possible. Sufficient surveillance and assessment data is not being collected frequently enough to allow DEM to compile an accurate list of waters that are still impaired. Additional financial and staffing resources should be allocated for evaluation and data collection on all Indiana watersheds. Staff should be adequate to allow proper supervision of individual watershed projects. Additional resources should be made available for grassroots water shed projects as well.

Fifth, efforts to control known sources should be expanded. Where rules already exist, such as those in the construction industry that regulate silt run-off, they should be enforced. Where possible, the State should support initiatives by local governments and citizens groups that seek to control non-point source pollution. If necessary, staff resources should be reallocated to effectively run pollution prevention programs. Where no specific rules exist, incentives for using best management practices should be used rather than promulgating more regulations. For example, income tax or property tax incentives could be made available to those citizens or businesses that work to protect the State's waterways. This approach would be particularly applicable to the agricultural community and would help address the issues of agricultural run-off and its impacts.

Sixth, the redevelopment of brownfields should be accelerated to reduce urban sprawl and its impact on the environment. The State should also devote adequate financial and staff resources to other existing programs that mitigate brownfield areas. This will lead to the preservation of farmland, forests, wetlands and other wilderness areas. The preservation of farmland is critical to the establishment of agricultural buffer zones along water ways. The preservation of wilderness areas mitigates erosion.

Finally, as the citizens of Indiana will be the ultimate benefactor of any agency program, it is incumbent upon the agency to make every reasonable effort to educate and inform the public as to the importance of this issue. An informed public will be in a better position to direct government as to the State's environmental priorities, making it easier to allocated the needed resources to prevent degradation of our water ways. All groups involved in addressing the issues of non-point source pollution should include public education efforts among its programs.

In conclusion, the work group realized early on that non-point source pollution is a complicated issue that has many ramifications to Indiana. The issues touch a wide variety of economic and political issues. There seems to be a large knowledge base on the subject but the exchange of information is inadequate. Better coordination of the stakeholders and greater prioritization of the critical issues is necessary to restore and protect Indiana's surface waters.